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When Weak Groups are Strong: How Low Cohesion Groups Allow Individuals to Act According to Their Personal Absence Tolerance Norms

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Abstract The study described in this article took place in a commercial production organization and a non-profit social welfare organization ($N = 377$ and $N = 582$, respectively). The study investigates how group cohesiveness and absence tolerance separately and in tandem are related to company registered absenteeism rates. As predicted, results support the hypotheses that absence tolerance is positively related with absenteeism and interacts with low group cohesion to result in absenteeism. Contrasting earlier studies that found highly cohesive groups to interact with absence tolerance, results of this study are the first to show that low group cohesiveness interacts significantly with absence tolerance. That is, low cohesive groups counterintuitively are related to the lowest levels of voluntary sickness absence together with intolerant views toward absence. This interaction effect is found independently in two different organizations.

Keywords Absence culture · Absence tolerance · Group cohesion

Organizations today need to make sure they tap into the full potential of their human capital. Ever increasing pressure to improve productivity and efficiency for management means that organizations can not afford to needlessly waste human resources due to unnecessary absenteeism. This study sets out to understand how an absence culture (Nicholson & Johns, 1985) may be related to absence behavior of individuals and of groups. More specifically, we investigate how voluntary absence

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(measured as absence frequency; Steel, 2003) is related to two central aspects of an absence culture, notably the norms and attitudes toward illegitimate reasons to be absent (i.e., absence tolerance; Haccoun & Jeanrie, 1995), and the strength of informal ties within work groups (i.e., group cohesion; Sanders & Hoekstra, 1998; Xie & Johns, 2000). Furthermore, we examine whether the collective norms of a group have an effect on the absence behavior of its group members.

Quite often it is assumed that investing in the culture and organizational climate[1] of a company or department will result in a more productive environment where employees, for instance, are less likely to be absent (Sanders, 2004; Sanders & Hoekstra, 1999). This noted, from a considerable number of studies we know that viewing group cohesion within an organization in isolation, may result in an inappropriate analysis (Sanders & Hoekstra, 1998; Xie & Johns, 2000). These studies show that it is more fruitful and accurate to look at the way the cohesiveness of groups interacts with cultural and behavioral norms within that group. These are cultural rules that, in fact, appear to influence the behavior of its members, and the cohesiveness of these groups determines just how this influence will take form.

Common reasoning proposes that strong, highly cohesive groups reinforce the influence of absence culture on the behavior of its individuals (Homans, 1951; Sanders & Hoekstra, 1998; Xie & Johns, 2000). Contrasting this common assumption, in this study we investigate how *low cohesive* groups may reinforce the relationship between an absence culture and individual absence behavior. We reason that in modern organizations groups are increasingly becoming less tight and cohesive (Castells, 1998; Putnam, 2000). Therefore, we will investigate how low cohesive groups may moderate the effect of absence tolerance on absence behavior. That is, we expect that a low cohesive group will be more likely than a highly cohesive group to allow individuals to act according to their personal beliefs concerning what are legitimate reasons to be absent, and thus will influence voluntary absence behavior (see Hypothesis 4).

Absence Culture

Roughly until 1980, absenteeism predominantly was seen as determined by individual factors such as job satisfaction, organizational commitment, and pay inequity (for an overview, see Johns, 1997; and for a recent example, see Podsakoff, Whiting, Podsakoff, & Blume, 2009). Since then, the focus in absenteeism research has gradually shifted toward investigating the impact of group and cultural processes on absence behavior (Bamberger & Biron, 2007; Chadwick-Jones, Nicholson, & Brown, 1982; Gellatly, 1995; Hausknecht, Hiller, & Vance, 2008; Iverson, Buttigieg, & Maguire, 2003; Johns & Nicholson, 1982; Sanders, 2004; Xie & Johns, 2000). Nicholson and Johns (1985) were the first to introduce the concept

[1] We define organizational climate as a set of characteristics that describe an organization, and that: (a) distinguish the organization from other organizations, (b) are relatively enduring over time, and (c) influence the behavior of people in the organization (Forehand & Gilmer, 1964).

of an absence culture, which assumes that individual absence behavior is influenced by peers through the conveyance of social information about beliefs and practices concerning what is expected *group* absence behavior. Aspects of an absence culture that have been related to the absence behavior of individuals and groups are the norms regarding what are acceptable absence rates (Gellatly, 1995), the transparency or salience of absence (Xie & Johns, 2000), absence tolerance (Haccoun & Jeanrie, 1995), and group cohesion (Sanders & Hoekstra, 1998). We focus on the latter two aspects of absence culture, as we feel that absence tolerance and group cohesion may represent attitudes and beliefs that may be shared by groups. Thus, as absence culture implies that absence behavior is, or at least partially is, a group phenomenon, we formulate the following hypothesis to establish whether this is the case:

Hypothesis 1 The voluntary absence of employees is positively related to the level of voluntary absence of the groups to which they belong.

Absence Tolerance and Absenteeism

A crucial issue in absence culture research is the collective norm of how employees perceive certain, more or less legitimate circumstances as tolerable reasons for absence (Bamberger & Biron, 2007; Gale, 1993; Geurts, Buunk, & Schaufeli, 1991; Haccoun & Jeanrie, 1995; Sanders & Hoekstra, 1998). From here onwards, we shall refer to this collective norm as absence tolerance.

In line with equity theory (e.g., Adams, 1965), the absenteeism model proposed by Smit (1997) assumes that the balance between job resources and job demands (Bakker, Demerouti, De Boer, & Schaufeli, 2003) will influence an employee's tendency to be inclined to be absent. More specifically, if an employee experiences that an organization demands more from him or her than the organization offers the individual in return, this could lead to withdrawal behavior[2] in the form of absence in order to restore this social exchange imbalance (Johns, 1997). Building further on this reasoning, Smit's absenteeism model (1997) also assumes that it will depend on the absence threshold regarding illegitimate reasons to call in sick (i.e., absence tolerance) of the individual whether he or she will actually decide to be absent (Veerman, 1993). A number of studies have indicated that employees' normative expectations about to which extent one should tolerate different reasons for being absent clearly are related to individual and group absence levels (Bamberger & Biron, 2007; Gale, 1993; Geurts et al., 1991; Haccoun & Jeanrie, 1995; Van Yperen, Hagedoorn, & Geurts, 1994). In these studies, employees with a tolerant attitude toward reasons to call in sick were more absent compared to employees with more

[2] We realize that equity theory does not only have implications for absence behavior, and can also be related to lowered morale, turnover and loss of productivity (Carrell & Dittrich, 1978). However, in this paper we focus on the effects of equity theory on withdrawal behavior to understand how absence tolerance is related to absence behavior.

stringent views about when one is allowed to be absent. Here, we define absence tolerance as a permissive belief—held individually or collectively—of illegitimate reasons for employees to be absent. Seen from this perspective, absence tolerance may be closely related to voluntary absence (Chadwick-Jones et al., 1982), as this permissive attitude is likely to foster voluntary absence behavior. Specifically, we focus on the frequency of absence spells in this study, as this is commonly seen a good indicator of voluntary absence (Judge & Martocchio, 1996). In addition, in order to focus on voluntary absence, we control for health complaints and thus to some extent for the involuntary aspect of absence. In other words, we are interested in sickness absence above and beyond health complaints. This leads us to formulate the following hypothesis:

Hypothesis 2 Absence tolerance is positively related to individual voluntary absence.

Group Cohesion and Absenteeism

During the last decade, the potential impact of social or group cohesion on absenteeism has generated a considerable amount of interest (Sanders & Hoekstra, 1999; Xie & Johns, 2000). Cohesion within groups is defined by the strength of the relationships between colleagues (Sanders & Hoekstra, 1998), and thus by the degree of informal ties (Granovetter, 1973) and by how closely knit people are within these groups. Highly cohesive groups have often been related to affective commitment (Andrews, Kacmar, Blakely, & Bucklew, 2008), cooperation, information sharing and perceived performance (Beal, Cohen, Burke, & McLendon, 2003; Mesmer-Magnus & DeChurch, 2009; Mullen & Copper, 1994), and satisfaction with groups and group viability (Tekleab, Quigley, & Tesluk, 2009). Social exchange theory considers social control as an exchange of peer approval for following group rules and norms (Homans, 1951). According to the social exchange perspective, people's inclination to follow group norms will be determined by the strength of the cohesiveness within that group. Gale (1993), for instance, found that absence tolerance, and thus the norm concerning different reasons for being absent, was lowest in highly cohesive groups.

Group cohesion, through its enforcement of behavioral compliance to norms (Locke, Latham, & Erez, 1988), is generally positively related to constructive work behaviors and to emotional support and satisfaction (Griffith, 1988), and negatively related to disruptive work behaviors such as, for instance, turnover rates (George & Bettenhausen, 1990). A number of studies also found that group cohesiveness has a direct negative effect on sickness absence rates, as well as on its frequency and duration (Buunk, 1990; Newsome, 1993; Sanders, 2004; Sanders & Hoekstra, 1998, 1999; Spink & Carron, 1992; Xie & Johns, 2000; Zaccaro, 1991). Following this reasoning, absence behavior is likely to be influenced by the degree of cohesion within the group, which leads us to formulate the following hypothesis:

Hypothesis 3 Group cohesion is negatively related to individual voluntary absence.

When Weak Groups are Strong

In this study, we challenge previous studies that assume that homogeneity of values and opinions and mutual agreement about group behavior determine the strength of a culture and thus also of an absence culture (Nicholson & Johns, 1985; Xie & Johns, 2000). This reasoning implies that the cohesiveness of a group will strongly impact the influence of an absence culture on the absence behavior of its members (Homans, 1951). In other words, according to this reasoning, the effect of absence tolerance on employee absence behavior would be expected to be most pronounced when group cohesion is strongest, compared to a relatively small impact on absence behavior when group cohesiveness is low. This would mean that in cohesive groups, intolerance toward voluntary absence should lead to low levels of absence, whereas tolerance toward voluntary absence would lead to high absence rates.

In this article, we challenge this reasoning, because we feel group cohesion may not be encouraged by modern organizations. Modern organizations in which there often is a strong focus on individual performance and thus on the individual employee, may emphasize self-interest (Hofstede, 1991) and thus may be damaging for the cohesiveness of working groups. In addition, modern developments, such as high turnover levels, mergers, and acquisitions and reorganizations are likely to be detrimental for the cohesiveness within a group. Whereas earlier studies generally focused on highly cohesive groups (Sanders & Hoekstra, 1998; Xie & Johns, 2000), we, therefore, consider that it is important to understand how the lack of cohesiveness within groups impacts an absence culture. That is, this study sets out to investigate the potential of low cohesion to moderate the relationship between an absence culture and absence behavior. As mentioned above, a number of studies have revealed the potential of cohesive groups to reinforce an absence culture (Sanders & Hoekstra, 1998, 1999; Xie & Johns, 2000). On the other hand, this moderating effect of strong groups implies that less cohesive groups may result in a culture with less compliance to group norms (Locke et al., 1988). Therefore, we reason that low group cohesion may also impact how absence tolerance is related to voluntary absence behavior. That is, compared to high cohesion, low cohesion will allow individuals to act more consistent with their personal values. Just as highly cohesive groups, low cohesive groups thus also influence the behaviors of its members. We thus reason that a culture with little group pressure and control also constitutes an organizational culture.

In contrast with earlier studies (Sanders & Hoekstra, 1998; Xie & Johns, 2000), and more accurately reflecting today's organizations, we thus argue that the *lack* of group cohesion may be related to an organizational climate with little social control. This implies that, contrary to what earlier studies have revealed, low cohesive groups may produce a climate in which individuals feel free and safe to act according to their own personal beliefs concerning legitimate absence behavior. Ultimately, this could lead to an organizational climate in which the lack of cohesion is more likely to moderate how absence tolerance actually translates into absence behavior. More specifically, in low cohesive groups, we would therefore expect high absence tolerance to be related to high levels of voluntary absence behavior. On the other hand, low absence tolerance would be expected to be related to low levels of voluntary absence behavior. This reasoning thus proposes that weak

groups potentially are capable of having positive effects. Therefore, we present our final hypothesis:

Hypothesis 4 Group cohesion interacts with absence tolerance such that in low cohesive groups, high absence tolerance is related to higher levels of voluntary absence among employees, whereas less absence tolerance is related with the lower levels of voluntary absence.

Method

Respondents and Employee Survey Setting

Employees from two Dutch organizations participated in this study. Organization 1 was a production and wholesale firm consisting predominantly of manual laborers. A total of 377 employees (response-rate 73%) took part, consisting mainly of men (80.9% men, 19.1% women) with an average age of 40.19 (SD = 9.76). The majority (95.8%) was of Dutch nationality (compared to 4.2% non-Dutch), and only a small section (11.1%) of the employees worked part-time (32 h or less per week). In total, 60 groups were distinguished with an average of 6.28 employees (SD = 4.91).

Organization 2 was the Dutch branch of a worldwide welfare and healthcare organization with in total approximately 3,500 employees in the Netherlands. A representative sample of roughly one-third (980 employees) of the total of was drawn (response was 59% with 582 respondents). The majority of our respondents were women (69%), the average age was 38.8 years (SD = 11.5), 91.5% was Dutch, and 73.7% worked 32 h or less per week. A comparison with the annual social report reveals that the sample is representative as far as gender and age is concerned; that is, as in the sample in the whole organization 69.0% is female and the average age is 39.1 years. Our sample consisted of 70 groups with on average 7.94 employees (SD = 4.36). With regard to the response rates in both organizations, it should be noted that both rates are well above what is considered to be the minimum response rate of 35% (Baruch & Holtom, 2008). All respondents from both organizations could be matched with the group to which they belong.

For Organization 1, the survey was introduced to the employees as an annual employee satisfaction survey that was used to assess and improve levels of work motivation, employee mobility, and absenteeism. Employees were asked to fill in a paper-and-pencil questionnaire. For the employees with a lower education level (mostly only primary school), sessions to fill in the survey with the researchers present were organized during working hours in order to clarify any questions regarding the content of the survey-items. Organization 2 was prepared to cooperate with this survey for which they received the results for their annual social report, and to identify organizational areas which needed attention. In both organizations, participation was voluntary and confidentiality was emphasized in communication by the management of the organizations.

Measures

Health Complaints

The 13-item short version of the Questionnaire for Evaluating Experienced Health-Conditions (Dirken, 1967) was used to assess psychosomatic health complaints. This is a well-validated Dutch instrument (De Boer, Bakker, Syroit, & Schaufeli, 2002; Martens, Nijhuis, Van Boxtel, & Knottnerus, 1999), which is also used by the Dutch Census Bureau for National Monitor Studies, and includes items such as: "Do you often feel pain in your stomach?" and "Are you short of breath quickly?" Respondents were asked to answer how they experienced these health complaints with an extreme confirmation answer category ("YES!"), a normal confirmation category ("yes"), a normal rejecting answer category ("no") or an extremely rejecting category ("NO!") (for Organization 1, $\alpha = .89$; for Organization 2, $\alpha = .88$).

Group Cohesion

Following Lambooij et al. (2003), group cohesion was measured with a ten-item scale. An example of an item was "With how many people from your department do you have a good personal relationship?" All items could be answered on a 7-point rating scale: "With no one" (1), "With almost no one" (2), "With a few" (3), "With half" (4), "With most" (5), "With almost everyone" (6), "With everyone" (7). The internal consistency for both organizations was good (Organization 1, $\alpha = .81$; Organization 2, $\alpha = .77$).

Absence Tolerance

Absence tolerance was measured using a three-item scale version of a scale developed by Sanders and Hoekstra (1999). The three items all proceeded by the question: "What do you think of the following reason to call in sick?," followed by these three reasons "Having private problems," "Being fed up with your work?," and "Just not feeling like working". Our measure only used items referring to voluntary absence tolerance, generally referred to as gray or black absenteeism (Allegro & Veerman, 1990), as this is the type of absence behavior that is seen to be controlled by the employee (Judge & Martocchio, 1996). All items are scored on a 4-point answering scale, with an extreme rejecting category ("BAD!"), a normal rejecting category ("bad"), a normal confirmation category ("good"), or an extremely confirmatory category ("GOOD!") (for Organization 1, $\alpha = .80$, for Organization 2, $\alpha = .63$).

Voluntary Absenteeism

Voluntary absence was measured by using the company records of the registered absence of the employees (means and standard deviations are provided in Tables 1, 2). For a period of 6 months prior to conducting the survey we used the frequency of

Table 1 Zero-order correlations, means, standard deviations, and alpha reliabilities (on the diagonal) for Organization 1 ($N = 377$)

	Mean	SD	1	2	3	4	5	6	7	8
1. Absence frequency	.77	1.01	–							
2. Health complaints	1.80	.59	.15**	.89						
3. Group cohesion	3.80	.99	−.05	−.08	.81					
4. Absence tolerance	1.43	.49	.14**	.16**	−.06	.80				
5. Age 1: young (dummy)	–	–	.13*	.02	.02	−.14**	–			
6. Age 2: middle (dummy)	–	–	−.02	.02	−.11	−.03	−.46***	–		
7. Gender (male)	–	–	−.02	−.08	.04	−.05	.09	−.03	–	
8. Managerial responsibility	–	–	−.18**	.00	.22*	−.13*	−.18***	.11	−.15**	–

* $p < .05$ (two tailed), ** $p < .01$ (two tailed), *** $p < .001$ (two tailed)

Table 2 Zero-order correlations, means, standard deviations, and alpha reliabilities (on the diagonal) for Organization 2 ($N = 582$)

	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Absence frequency	.80	1.09	–									
2. Health complaints	1.89	.56	.19**	.88								
3. Group cohesion	3.64	.89	.00	−.11*	.77							
4. Absence tolerance	1.47	.40	.11*	.17*	−.07	.63						
5. Group cohesion team	3.64	.42	−.04	.07	.48***	−.03	–					
6. Absence tolerance team	1.47	.16	.15***	.06	−.03	.39***	−.07	–				
7. Age 1: young (dummy)	–	–	−.01	.00	−.01	.07	.06	.16***	–			
8. Age 2: middle (dummy)	–	–	.04	−.09*	−.03	−.04	−.04	.05	−.50***	–		
9. Gender (male)	–	–	.06	.04	−.06	.07	.02	.04	.15***	−.02	–	
10. Managerial responsibility	–	–	−.15**	.09*	−.16***	−.14**	−.08*	−.13**	−.15**	.06	−.12**	–

* $p < .05$ (two tailed), ** $p < .01$ (two tailed), *** $p < .001$ (two tailed)

absence spells, as absence frequency is considered a good indicator of voluntary absence (Judge & Martocchio, 1996). Voluntary absenteeism is usually operationalized as absence *frequency*, i.e., the number of spells or times an employee has been absent during a particular period, regardless of the length of each of those spells (Steel, 2003). Involuntary absence is usually operationalized as absence *duration*, i.e., the total length of time an individual has been absent over a specified period regardless of the number of absence spells (Steel, 2003). Prior studies examining the interaction effects of group cohesion and absence tolerance (Xie & Johns, 2000) used self estimations of absenteeism. However, studies (Van Poppel, De Vet, Koes, Smid, & Bouter, 2002) have shown that self estimations can be unreliable and company records are thus superior. Skewness was 1.81 for Organization 1 and 2.14 for Organization 2, and showed relatively minor deviations from the critical value of 1.96 Therefore, we conclude that skewness is not a problem.

To interpret the absenteeism data properly, it is important to note that in the two organizations we studied in this article, employees were not allowed to take so-called personal days for absences that are not related to health. Dutch employees also do not have a set amount of sick days, which they lose at the end of the year. That is, this typically is not the case, unless organizations make specific policies around these topics, which was not the case for the two organizations we studied here. These two organizations had very similar and straightforward policies regarding absence management at the time of the survey.

Results

Correlational Analyses

In Tables 1 and 2, means, standard deviations, and Pearson zero-order correlations of the variables assessed in both organizations are presented. All relationships between the dependent variable—absence frequency—and the independent variables were in the expected direction. For instance, in both organizations, absence frequency was significantly and positively correlated with both absence tolerance and health complaints, but not group cohesion.

Testing of Hypothesis 1

Our first hypothesis concerned whether a group structure was present in the absence rates investigated in these samples. Linear mixed model analyses help to determine whether a dependent variable (absence frequency) is nested within a group structure (group), which is a condition for performing multi-level analyses for models including the independent variables (Hox, 2002). The outcome of this initial analysis of whether absence frequency behavior is related to the group structure determines if multi-level analyses (as opposed to linear regression analyses) are appropriate for testing the remaining hypotheses. We examined this by means of

linear mixed model analysis, determining whether including the grouping variable "team" was related to a significant improvement of the fit of the model explaining the variance of absence frequency. Therefore, we first entered "team" as a random grouping variable and absence frequency as the dependent variable into a linear mixed model analysis for both organizations separately. Following this, we repeated the analyses without "team" as the random grouping variable to determine whether a multi-level structure would be appropriate. The 2 Log Likelihood for Organization 1 did not increase significantly ($\Delta\chi^2 = 1.97$, ns), whereas it increased significantly for Organization 2 ($\Delta\chi^2 = 27.41$, $df = 1$, $p < .001$). In addition we also performed a within and between-group analysis of variance, which indicated that absence behavior did not differ between groups for Organization 1 ($F = 1.24$, ns), but did significantly differ between groups for Organization 2 ($F = 2.28$, $p < .001$). In addition, we also found that the intra class correlation for "teams" for Organization 2 was 14.88%, which passed the cutoff score of 12% to suggest a nesting structure and thus justifies multi-level analysis (Bliese, 2000). These results conclude that Hypothesis 1 is supported only for Organization 2, and indicate that linear multivariate regression analysis is most appropriate for Organization 1, whereas multi-level analysis is most appropriate for Organization 2. We will first describe the linear multivariate analyses which we executed for Organization 1, followed by the multi-level analyses for Organization 2.

Preliminary Analyses Organization 1

For Organization 1, we executed hierarchical (three steps) regression analyses. Results of these analyses can be found in Table 3. Before entering the variables into

Table 3 Results (standardized B-coefficients) of the two-way hierarchical regression analysis for Organization 1

	Absence frequency			
	Step 1	Step 2	Step 3	Step 4
Age 1: young (dummy)	.12	.11	.15*	.15*
Age 2: middle (dummy)	.04	.04	.06	.05
Gender (male)	−.04	−.03	−.02	−.02
Managerial responsibility	−.17**	−.17**	−.14*	−.14*
Health complaints	–	.15**	.13*	.12*
Group cohesion (COH)	–	–	.00	.00
Absence tolerance (TOL)	–	–	.16**	.16**
COH × TOL	–	–	–	−.11*
R^2 change	.042	.023	.024	.012
R^2 total	–	.065	.089	.101
Significance model (F)	3.74**	4.70***	4.67***	4.68***

$N = 377$. * $p < .05$ (two tailed). ** $p < .01$ (two tailed), *** $p < .001$ (two tailed)

the analyses, they all were centered (see Cohen, Cohen, West, & Aiken, 2003). The control variables (gender, age, and managerial responsibility) were entered as the first step as previous research has indicated that they may affect, for instance, an employee's motivation to attend work (Johns, 1997). Of the control variables, when all other variables are included in Step 4, younger and non-managerial employees are significantly more absent ($\beta = .15$, $p < .05$, and $\beta = -.14$, $p < .05$, respectively). The second step in Table 3 entered the independent variable psychosomatic health complaints. This variable was entered first in order to be able to determine the unique effects of the effects of the other independent variables on absenteeism above and beyond psychosomatic health complaints. The independent variables absence tolerance and group cohesion were entered in the third step. The final step was to enter the multiplicative interaction term of absence tolerance x group cohesion. Here we will proceed with discussing the remaining hypotheses after the preliminary analyses for Organization 2.

Preliminary Analyses Organization 2

After establishing that multi-level analyses are most suitable for investigating the effects of group cohesion and absence tolerance on absence frequency for Organization 2, we proceeded to determine whether aggregation of the two independent variables (group cohesion and absence tolerance) to team level is justified. Group cohesion was entered into a linear mixed model analysis as the dependent variable with "team" as a random grouping variable, after which we repeated this analysis without a random grouping variable. The significant increase in 2 Log Likelihood ($\Delta\chi^2 = 93.94$, $df = 1$, $p < .001$) indicates a clear group component in group cohesion and hence justifies aggregating the group scores (all individuals within a group are assigned the average score of their group for group cohesion). The same procedure was followed for absence tolerance as a dependent variable. The 2 Log Likelihood increased significantly ($\Delta\chi^2 = 23.28$, $df = 1$, $p < .001$), which also justified aggregating the group scores of absence tolerance.

Next, we executed four nested linear mixed model analyses with "team" as a random grouping variable to determine which model had the best fit and thus which variables are significantly related to absence frequency (Table 4).

The three control variables (gender, age, and managerial responsibility) were again entered first (managerial responsibility showed the only negative significant relation with absence frequency, e.g., in Model 2, $t = -2.92$, $p < .01$). In order to test Model 1 health complaints and the two independent variables group cohesion and absence tolerance at individual level were entered. The multiplicative interaction effect of group cohesion and absence tolerance at individual level was added in Model 2. Next, we included the aggregated independent variables of group cohesion and absence tolerance into Model 3 and finally the interactive effect of the aggregated variables in Model 4.

Looking at the fit scores, Model 2 showed the best fit as the 2 Log Likelihood improved significantly compared to Model 1 ($\Delta\chi^2 = 3.490$, $df = 1$, $p < .05$),

Table 4 Results (B-coefficients) of the linear mixed model analysis with "team" as a random grouping variable for Organization 2, 70 teams were distinguished

	Absence frequency			
	Model 1	Model 2	Model 3	Model 4
Age 1: young (dummy)	−.05	−.05	−.04	−.04
Age 2: middle (dummy)	−.22	−.20	−.20	−.20
Gender (male)	−.11	−.11	−.11	−.11
Managerial responsibility	−.34**	−.35**	−.34**	−.34**
Health complaints	.23**	.24**	.25**	.25**
Group cohesion (COH)	.06	.07	.09	.09
Absence tolerance (TOL)	.13	.15	.10	.10
COH × TOL	–	−.28*	−.27*	−.27*
Group cohesion team aggregated (COHT)	–	–	−.12	−.13
Absence tolerance team aggregated (TOLT)	–	–	.57	.56
COHT × TOLT	–	–	–	−.02
(Constant)	1.08***	1.06***	1.05***	1.04***
Model fit (−2*log likelihood)	1479.690	1476.250	1475.264	1474.402
Improvement of the model fit	3.976 (3)	3.490 (1)*	.986 (2)	.862 (1)
McFadden R^2 (McFadden, 1979)	.097	.099	.100	.100

$N = 582$. * $p < .05$ (two tailed). ** $p < .01$ (two tailed), *** $p < .001$ (two tailed)

whereas Model 3 and Model 4 did *not* further improve the relative model fit.[3] Therefore, the results of Model 2 should be interpreted for testing the hypotheses.

Testing of Hypotheses 2–4

For Hypotheses 2 and 3, we inspected the third step of the four-step regression analysis (Table 3) and the multi-level linear mixed model analysis of Model 2 (Table 4) in order to determine whether absence tolerance is positively related to absenteeism (Hypothesis 2), and group cohesion negatively (Hypothesis 3). The results of the regression analyses for Organization 1 indeed reveal a positively significant relation between absence frequency and absence tolerance ($\beta = .16$, $p < .01$), but *no* significant relationship between absence frequency and group cohesion ($\beta = .00$, ns). The multi-level analysis for Organization 2 indicates that when the group structure of "team" is taken into consideration, both absence tolerance and group cohesion are *not* significantly related to absence frequency. Although the results for Organization 1 show a significant positive effect of absence

[3] As proposed by Wasserman and Faust (1994), we also divided the aggregated scores of group cohesion and absence tolerance by their standard deviations in order for the aggregated scores to better reflect the degree of similarity of the respondents within the team. However, this did not lead to significant scores of the independent variables and their interactive effect on absence frequency.

tolerance on absence behavior, the lack of a significant relationship from the multi-level results for Organization 2 only provides us with evidence at individual level for accepting Hypothesis 2. As both analyses from Organization 1 and 2 indicate that there is *no* direct relationship between group cohesion and absence frequency, we conclude that Hypothesis 3 is not confirmed.

The final step of the regression analysis for Organization 1 and in Model 2 of the multi-level analyses for Organization 2 shows that the interaction effect of absence tolerance and group tolerance on absence frequency (Hypothesis 4) is significant for both organizations. In order to determine whether or not the effects of absence tolerance on absence frequency are most pronounced when group cohesiveness is high, we now turn to Figs. 1 and 2 for the exact nature of these interaction effects. Both figures were drawn according to the procedures proposed by Aiken and West (1991).

For both organizations, absence tolerance was significantly related to absence frequency in the low group cohesion (low group cohesion is determined by subtracting 1 standard deviation from centered group cohesion and high group cohesion by adding 1 standard deviation) condition (for Organization 1, $t(343) = 3.60$, $p < .001$, and for Organization 2, $t(506) = 2.42$, $p < .05$). In line with our expectations, the low group cohesion condition thus revealed a strong increase of absence frequency when employees indicated they had tolerant views toward illegitimate reasons to be absent, compared to when employees had intolerant views. In contrast, absence tolerance was less strongly related to absence

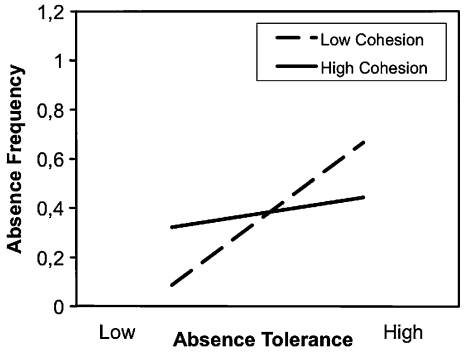

Fig. 1 The interactive effect of absence tolerance and group cohesion on the average amount of absence frequency spells for Organization 1

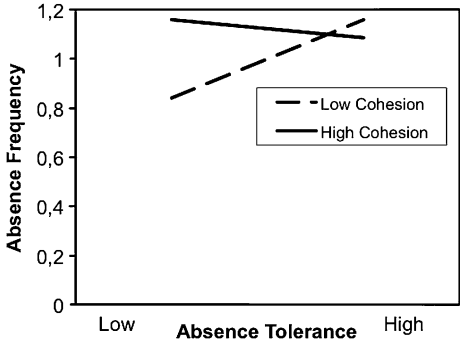

Fig. 2 The multi-level interactive effect of absence tolerance and group cohesion on the average amount of absence frequency spells for Organization 2

frequency in the high group cohesion condition (for Organization 1, $t(343) = .76$, ns), or even slightly negatively (for Organization 2, $t(506) = -.32$, ns). The high group cohesion condition thus appeared less relevant than the low group cohesion condition to moderate the effects of absence tolerance on absence frequency. Both interaction effects clearly support our line of reasoning that absence frequency is highest in low cohesive groups with high absence tolerance, whereas absence frequency is lowest in low cohesive groups with low absence tolerance. Therefore, we conclude that Hypothesis 4 is supported.

Discussion and Conclusions

This study sets out to understand how group and social determinants influence absence behavior of its individual members. A new wave of absenteeism research and theory has influenced the thinking about how organizational and group culture (absence culture) may impact the values and norms of its members with regard to legitimate absence, and in turn how this influences actual absence behavior (Bamberger & Biron, 2007; Gale, 1993; Geurts et al., 1991; Haccoun & Jeanrie, 1995; Sanders & Hoekstra, 1998, 1999). Interestingly, for only one of the two organizations in our study we found that individual voluntary absence is related to that of the group they belong to (Hypothesis 1). For the other organization this implies that absence is not related to group culture and should be investigated as resulting from individual perceptions, as opposed to views transferred to them from the group. Explanations for these contrasting findings will be discussed later on. As predicted by Hypothesis 2, for one of the organizations investigated, using a linear regression analysis, we found a positive relationship between individual level absenteeism and absence tolerance; one of the central aspects of absence culture (Nicholson & Johns, 1985). Group cohesion, another important aspect within absence culture, which in other research often is associated with lower absenteeism (Buunk, 1990; Newsome, 1993; Sanders, 2004; Sanders & Hoekstra, 1998, 1998; Spink & Carron, 1992; Xie & Johns, 2000; Zaccaro, 1991), in our study was *not* directly negatively related to absenteeism for both organizations (Hypothesis 3). On the other hand, the interaction effects between group cohesion and absence tolerance we hypothesized were significant for both samples investigated. As predicted by Hypothesis 4, cohesion interacted with absence tolerance, such that in low cohesive groups high absence tolerance is related to the high levels of absenteeism and low absence tolerance is related to the low absence spells.

The findings in our study contrast earlier research. Counterintuitively, low cohesion appears to have the most influence on absence behavior. That is, low cohesive groups seem to be related to a culture in which people experience little control and can act in line with their own personal convictions about what is acceptable absence behavior. These findings also support the as yet relatively unexplored reasoning that there may be benefits to low cohesive groups. That is, when individuals have strong strict personal views about what are acceptable reasons to be absent, they will not be obstructed by possibly different group norms to act according to their own views.

Is Absenteeism a Group Phenomenon?

Previous studies exploring absence culture, or social and group processes that influence absence behavior of its members, have applied multi-level and/or cross-level analyses in order to illustrate how group norms about behavior are transferred to individuals within groups (Dansereau, Alluto, & Yammarino, 1984; George, 1990; George & James, 1993; Johns, 1994; Markham & McKee, 1995; Martocchio, 1994; Mathieu & Kohler, 1990; Sanders, 2004; Sanders & Hoekstra, 1998, 1999; Xie & Johns, 2000). The common thinking about cross-level and multi-level techniques is that they increase the likelihood of finding significant predictive results if social or cultural aspects play a role in determining individual behavior (Johns, 1997). Although our study does investigate the social dimension in individual voluntary absence behavior, multi-level analyses, using linear mixed model analysis, revealed for one of our organizations that the group component did not significantly affect the absence rates. Relatively few other studies (Geurts et al., 1991; Haccoun & Jeanrie, 1995; Spink & Carron, 1992) have found significant common linear regression modeling effects of group predictors of individual absence behavior. Most previous studies have *assumed* a group structure in the voluntary absence data or group cohesion and absence tolerance variables, and subsequently applied multi-level techniques without explicitly *testing* whether this was justified (Sanders & Hoekstra, 1998, 1999; Sanders, 2004; Xie & Johns, 2000). Our study reveals that, at least in some organizations, the individual perception of supposedly group determinants of voluntary absence appears to be more dominant and meaningful than the shared perception. Why would this be the case?

A first partial explanation could lie in the different contexts of the two organizations in this research. The context of Organization 1 is such that it is a large employer within a small community, where many employees know each other socially outside of work, both within and between working groups. This could stimulate the emergence of an organizational culture that is very similar for all the separate groups. The structure of Organization 2, however, is such that group units are very autonomous and operate from different locations. This physical separation of the group and distance from headquarters could be responsible for unique cultures and group absence behavior patterns at group unit level.

The different characteristics of the two samples may also influence the degree in which individuals identify with the group they belong to. Organization 2, for instance, consists of considerably more female and part-time employees. One could reason that such groups are more strongly focused on the behavior and norms of their group, compared to those of the organization. Part-timers have limited time to invest in an organization and thus need to make (sub-conscious) choices about what is important for them at work, such that the tangible and visible norms of the group they belong to are likely to be more dominant than those of the organization. In addition, female employees may find the social and thus group-oriented aspects of working more important than males. It must immediately be noted that this reasoning is speculative and further research is clearly needed to clarify whether these group characteristics may be responsible for whether individuals are more prone to adhering to group norms. This noted, both of these explanations may

explain the difference of the influence the group had on the absence behavior in these two samples, but do not account for the better fit of the individual level measures of group cohesion and absence tolerance, compared to when these variables were aggregated.

Another explanation of these findings may be that in the case of the current two organizations, it could be that we may not be talking of cultural effects on individual behavior per se. Instead, it could be that certain environmental dimensions interact with individual dispositions or traits, such that it is possible to find a similar variance of behavior within and between different groups. In Organization 2, where we executed multi-level analyses, we indeed found that the independent variables absence tolerance and group cohesion at individual level showed a better model fit than the aggregated variables. The experience of cohesiveness could thus be a personal perception, rather than a collective perception of the cohesiveness of the group, and could therefore interact with personal attitudes toward absence tolerance at an individual level. This implies that the personal experience of a group culture may vary within the group and thus moderate the way absence tolerance impacts absence behavior differently according to the perception of the individuals. In earlier studies (Sanders & Hoekstra, 1998, 1999), in line with self-categorization (Hogg, 2000), social identity appeared to be stronger than the individual identity of the employees. In contrast, the opposite appears to be the case in this study. Our results are in line with the observation that modern organizations have less and less cohesive groups and that these low cohesive groups may also impact absence behavior. The fact that the strongest effects of absence tolerance were found in low cohesive groups only underlines this speculation. In fact, this dominant effect of low cohesive groups over highly cohesive groups, as well as the lack of evidence for an influence of the group in the multi-level analyses, suggest that these concepts of group cohesion and absence tolerance may indeed be a matter of individual perception, rather than of a shared absence culture.

A final explanation could be that there is another variable responsible for absenteeism that is shared by the group. Other absence culture aspects such as norms about acceptable absence rates (Gellatly, 1995), or the transparency of absence (Xie & Johns, 2000) may have had an influence at group level, or interacted with the two absence culture aspects we measured in these particular samples. We therefore recommend that these absence culture concepts, as well as factors such as company and country absence policies, and management attitudes are included in future research.

Cohesion and Absenteeism

Why does cohesion not impact absenteeism in our study? Our results contradict previous theory and past studies, which did find support for this relationship (Sanders & Hoekstra, 1998, 1999; Xie & Johns, 2000). The research of Xie and Johns (2000) is one of the most influential studies on the topic of cohesion and absenteeism and took place in China. The authors drew upon theory about cultural differences (Hofstede, 1991) to explain why their findings were likely to be so

pronounced in China. It is argued by these authors that the Chinese culture is collectivistic by nature and is likely to foster cohesiveness within its organizations. Our study, in contrast, was conducted in two Dutch organizations, where the national culture is considered to be more individualistic by nature (Hofstede, 1991). Individualistic cultures are less likely than collectivistic cultures to transfer behavioral rules about absence through the organizational or group culture (Xie & Johns, 2000). Therefore, in such an individualistic culture, it is plausible to find that a cohesive group does not automatically have to directly affect the absence behavior of the individuals within the group.

Other studies where such a direct relationship between group cohesiveness and absenteeism was found, often applied a slightly different research design. While we examined the absence patterns of *all* respondents from the company records, other studies compared extreme low absence groups with extreme high absence groups. In addition, theses studies only compared short -term absence spells with long-term absence spells (Sanders & Hoekstra, 1998, 1999). Designs comparing extreme groups of high and low absentees may capitalize on inflated effect sizes (Johns, 1997), and thus may be a less accurate design.

The role of organizational commitment may also be important to fully understand the relationship between group cohesion and absence behavior. That is, commitment has been found to increase the relationship between group cohesion and job performance (Mullen & Cooper, 1994), and this may also be the case for absence behavior. For instance, if employees are highly committed to the organization, group cohesion may be more likely to reduce voluntary absence, whereas low organizational commitment (and presumably less concern about the organization's outcomes), combined with strong groups may increase absenteeism. Similarly, high organizational commitment may temper the interactive impact of absence tolerance with group cohesion on voluntary absence, whereas less organizational commitment may actually enforce this relationship and lead to high levels of voluntary absence. Future research including measures of organizational commitment is therefore recommended.

Absence Tolerance and Absenteeism

Our study clearly provides support for the existence of a positive relationship between absence tolerance and absenteeism for Organization 1, and the nature of this relationship appears clear in the sense that views and values influence absence behavior (Geurts et al., 1991; Veerman, 1993). This noted, an interesting result is that the multi-level analysis, taking the group structure into consideration, does *not* yield a significant relationship between absence tolerance and absence frequency. Even though multi-level analyses revealed that aggregation of absence tolerance to the group level was justified, the tolerance group score did not predict absenteeism better than the individual level tolerance score. At least for the two samples we investigated, this implies that tolerance views held at an individual level concerning illegitimate reasons for absence are more important for the actual employee absence than those transferred to them by the group they belong to. It appears that these

individual views on absence, in combination with individual perceptions low cohesiveness within their group, best explain absence frequency in these two organizations. Instead of reasoning that this is an organizational phenomenon, this also could indicate that the perception of a low cohesive group provides employees with a lack of social control and the safety to feel comfortable acting consistent with their personal norms about absence behavior. As we can see in Fig. 2, low levels of group cohesion may thus create a culture in which both positive (low absence tolerance) and negative views (high absence tolerance) on absence impact individual absence behavior accordingly.

If these personal absence tolerance views are not transferred through a shared culture, the question remains of how they do come to exist. Absence tolerance norms could be determined by an individual's personal work ethics (Sanders, 2004) and thus by personal attitudes independent of group influence. On the other hand, Geurts et al. (1991) found that personal absence norms were influenced by pay inequity and thus by determinants which can be controlled and managed by an organization. Perceived inequity between job resources and job demands (Bakker et al., 2003), in line with Adam's equity theory (Adams, 1965), could probe employees to try and restore this imbalance by perceiving (voluntary) absence reasons more leniently, which, in turn, would lead to more frequent absence spells. In addition, the environmental context may impact the effect of absence tolerance on absence behavior. To illustrate this, withdrawal aspects such as satisfaction and commitment have been found to be more strongly related to absenteeism when there are plentiful job opportunities, compared to when jobs are more scarce (Hausknecht et al., 2008). As employees appear to be more careful about withdrawal when job conditions are less favorable, this could also impact whether tolerant views regarding absence reasons translate into actual voluntary absence behavior. As the current study cannot reveal how absence tolerance is determined, and exactly how this leads to absence behavior, further research aiming at pinpointing these exact origins is encouraged.

Limitations

A limitation of this study is that the alpha reliability of the absence tolerance measure was somewhat low for Organization 2 ($\alpha = .63$), as compared to Organization 1 ($\alpha = .80$). This could indicate that within Organization 1, the employees differentiate less between their tolerance for different reasons of voluntary absence, contributing to a higher internal consistency. The lower internal consistency for absence tolerance in Organization 2, could suggest that a different measure with more applicable voluntary absence examples would have been somewhat more appropriate. On the other hand, we would like to note here that an internal consistency of more than .60 generally is considered to be appropriate, especially for scales with a few items only (Nunnally & Bernstein, 1994).

Another limitation of this study is that for both organizations we found relatively small correlations between absence tolerance and absence rates (for Organization 1, $r(343) = .14, p < .01$, and for Organization 2, $r(506) = .11, p < .05$), and relatively little explained variation by the interaction effects between absence tolerance and group cohesion on absence (e.g., for Organization 1, $R^2 = .012$). Even though these results are moderate, they do support most of our hypotheses and thus our theory about the potential negative combined effect of absence tolerance and low group cohesion. Moreover, please note that sickness absence was measured by using objective (i.e., company records) instead of subjective (i.e., self-assessment) indicators, which restricts the size of the correlations. This study used company records of absence frequency as its dependent variable, and therefore, we can be rather confident that common method variance issues have been avoided. However, unfortunately we could only get hold of absence frequency rates prior to the survey, so that they do not permit us to draw conclusions about causality. On the other hand, previous research has shown that this need not be such a big problem, as individual absence behavior is very stable over time (Farrel & Stamm, 1988; Rentsch & Steel, 1998), even when comparing an individual's absence behavior during high school with that during later employment (Brenner, 1968) and when comparing absence of before and after interventions (Ivanchevich, 1985). Therefore, we would expect the individual absenteeism rates *after* the survey to be very similar to those from before the survey.

This noted, we hasten to suggest that replicating these findings within a longitudinal research design and with absence data following the survey measurement is needed. This would further delineate the exact nature by which voluntary absenteeism is determined (group versus individual). We do, however, feel that the design of this study does overcome a number of limitations of previous studies. For instance, we used larger samples than earlier studies (Sanders & Hoekstra, 1999) and analyzed the absence of *all* respondents, rather than comparing only extreme groups with high and low absentee rates, which may have capitalized on inflated effect sizes (Johns, 1997).

Practical Implications

A current challenge for organizations resulting from pressure of share-holders to increase profit margins is to engage their employees as much as possible and to optimally utilize their talent. In such a competitive environment, unnecessary absence is not justifiable and can be a great concern for organizations. The most recent wave within the absenteeism literature assumes that culture and group processes are important factors in explaining voluntary absence (Johns, 1997).

Group cohesiveness and tolerance toward absence within a group are often seen as instrumental in understanding an absence culture (Johns, 1997; Nicholson & Johns, 1985). From the findings of our study we can conclude that for organizations these factors indeed are important to consider when trying to manage absenteeism. However, it also is important to understand in which way these factors interact to produce absence behavior, and in which way they do so each on their own. We found that absence tolerance in isolation may have a clear influence on individual absence behavior, whereas group cohesion in itself hardly impacts absence levels.

This noted, low group cohesion certainly does have the unfortunate capability of raising absence in combination with a tolerant norm regarding absenteeism, whereas it also may have a discouraging effect on absence when tolerance is low. According to our consistent findings across both organizations, the ideal absence culture for organizations thus appears to be a combination of a strict tolerance norm together with a relatively low degree of group cohesion. This combination appears to allow individuals to behave in line with their personal strict views. These unique results thus reveal the potential strength of weak groups.

The potential of low cohesive groups to influence absence behavior is a relatively untouched subject. Therefore, we hope that our findings encourage future research to explore the potential effects low group cohesion may have on how an absence culture is related to actual voluntary absence behavior. Based on the results of this study, we expect that investing in fostering strict but realistic views about acceptable absence behavior, and at the same time a culture that encourages individuals to act consistent with these views, will lead to the lowest possible levels of absence. With these novel insights and the practical implications of this study, we hope to have shown that this study is important from both managerial and scientific perspectives.

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